

REMARKS:

Claims 15-29 are in the case and presented for consideration.

Claims 15, 20-23 and 25 have been amended to overcome the rejections under 35 U.S.C. § 112.

Claims 30 and 31 have been added.

The Rejections Under 35 U.S.C. § 112

- a. Claims 15 and 22 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite because they recite that the plasma polymerized layer is in the nanometer range. (Office Action, page 2). Claims 15 and 22 are amended to recite that the plasma polymerized layer is in the nanometer range of between 1 to 100 nm.
- b. Claim 20 stands rejected because it recites both the broad limitation functional polar groups and the narrow limitation of hydroxyl-carbonyl-, carboxylic acid-, carboxyl ester, amine-, imine-, amide-, and/or conjugated nitrile groups. (Office Action, page 3). Claim 20 is amended to delete the narrow limitations which are now recited in new claim 30.
- c. Claims 15 and 20 stand rejected because the phrase “and/or” renders the claims indefinite. (Office Action, page 3). Claims 15 and 20 are amended to delete the phrase.
- d. Claims 20 and 25 stand rejected because the phrase “preferably” renders the claim indefinite. (Office Action, page 3). Claims 20 and 25 are amended to delete the phrases beginning with “preferably” in each of the claims.

- e. Claims 21 and 23 stand rejected because there is an insufficient basis for reciting the upper and lower layers in these claims. (Office Action, page 4). The amendment to these claims is believed to obviate this rejection.

Rejection Under 35 U.S.C. § 102

Claim 22 stands rejected under 35 U.S.C. § 102 as being anticipated by Ramesh et al. (U.S. 5,763,095). The reason for this rejection is stated at page 4 of the Office Action. Applicant respectfully traverses the rejection of this claim for the following reasons.

To establish anticipation under 35 U.S.C. § 102, each and every element in a claim, arranged as is recited in the claim, must be found in a single prior art reference. *Karsten Mfg. v. Cleveland Golf Co.*, 242 F.3d 1376, 58 USPQ 2d 1286, 1291 (Fed. Cir. 2001). A product by process claim is unpatentable if the product in the product-by-process claim is the same or is obvious from a product in the prior art. *In re Thorpe*, 777 F.2d 696, 227 USPQ 964, 966 (Fed. Cir. 1985).

Claim 22 is patentable because it is not the same as, nor is it obvious from, the teaching of Ramesh et al. More specifically, Ramesh et al. does not disclose the claimed plasma layers nor does Ramesh et al. disclose a layer of the same thickness as recited in claim 22. Thus, Ramesh et al. states that:

“[t]he layer [of film material] comprising the partially aromatic nylon has a thickness of preferably 0.05 mil. to 5 mil., more preferably 0.07 to 0.5 mil. and most preferably 0.1 to 0.3 mil.”

(Col. 4, lines 65-67).

Ramesh et al. are specific about the thickness of their film material. The particular thickness of the Ramesh et al. film is important because their film must satisfy a number

of conditions unique to the packaging of cheese. See Column 1, lines 11-28.

Here, Ramesh et al.'s minimum film thickness is 0.05 mil. to 5 mil., i.e., 1270-508.000 nm. It is substantially greater than the thickness of applicant's film which, as recited in amended claim 22, is 1 to 100 nm. Accordingly, because Ramesh et al. does not recite "each and every element," of claim 22, it does not anticipate the claim.

Claim Rejections - 35 U.S.C. § 103

In determining the differences between the prior art and the claims (the second factual inquiry set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966)), the question under 35 U.S.C. §103 is not whether the differences themselves would have been obvious, but whether the claimed invention as a whole would have been obvious. *Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 218 USPQ 871 (Fed. Cir. 1983). A patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art. *KSR International Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1742, 82 USPQ2d 1385, 1397 (2007). Distilling an invention down to the "gist" or "thrust" of an invention disregards the requirement of analyzing the subject matter "as a whole" as does disregarding the limitations of an application. *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984). It is impermissible to ignore the advantages, properties, utilities, and unexpected results flowing from the claimed invention; they are part of the invention as a whole. *In re Chupp*, 816 F.2d 643, 2 USPQ2d 1437 (Fed. Cir. 1987); *Fromson v. Advance Offset Plate*, 855 F.2d 1549, 225 USPQ26 (Fed. Cir. 1985).

The Rejection of Claims 22-29 Under 35 U.S.C. 103(a)

Claims 22-29 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Ramesh et al. in view of Moser (WO 99/39842 with U.S. 6,746,721 used as a translation) and applicant's own disclosure. The reasons for the rejections of these claims are stated at pages 5 and 6 of the Office Action. Applicant respectfully traverses the rejection of claims 22-29 for the following reasons.

- a. With respect to claim 22, it would not have been obvious to one of ordinary skill in the art at the time of the invention to provide a thinner version, (i.e., 1-100 nm) of the invention of Ramesh et al. First, Ramesh et al. do not disclose the claimed plasma layer. Secondly, it would have not been obvious to do so because the thickness of the Ramesh et al. layer satisfies a number of conditions for cheese packaging, and modifying the Ramesh et al. film to provide a substantially thinner layer could adversely impact the film of Ramesh et al. to meet these conditions.
- b. Claim 23 depends from claim 22 and is allowable for the same reasons given above with respect to claim 22. In addition, since Ramesh et al. does not utilize plasma polymerization, it cannot be combined with Moser which produces coatings by plasma polymerization. Moreover, Moser is not a proper secondary reference because Moser does not describe a two stage coating and Moser operates at substantially lower process pressure values, for example, a pressure of 10^{-2} mbar. (Column 4, line 11, 12).
- c. Claims 24 and 25 depend from claim 22 and are allowable for the same reasons given above with respect to claim 22. In addition, altering the nitrogen containing

lower layer of Ramesh et al. and the material for the upper layer of Ramesh et al. are alterations that appear to be suggested only by applicant's present invention.

- d. Claim 26-29 depend from claim 22 and are allowable for the same reasons given above with respect to claim 22.

The Rejection of Claims 15, 16, 18, 20 and 21 Under U.S.C. 103(a)

Claims 15, 16, 18, 20 and 21 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Moser (WO 99/39842 with U.S. 6,746,721 used as a translation) and applicant's own disclosure. The reasons for the rejection of these claims are stated at pages 7 and 8 of the Office Action. Applicant respectfully traverses the rejections of claims 15, 16, 18 20 and 21 for the following reasons.

- a. With respect to claim 15, Moser does not disclose the claimed first and second zone nor does Chang disclose first and second zones of different chemical compositions. Therefore, even assuming arguendo that Moser and Chang may be properly combined, that combination would not render claim 15 unpatentable. Further, claim 15 has been amended to recite that the substrates are weldable plastic and plastic composites. The substrates of Chang, in contrast, are not formed of a weldable plastic and plastic composite, but rather are formed of ceramic, non-weldable materials.
- b. Claim 16 depends from claim 15 and is allowable for the same reasons given above with respect to claim 15. Further, as noted above, Moser discloses an operating pressure of 10^{-2} mbar which is below the pressure recited in claim 16.
- c. Claims 18, 20 and 21 depend from claim 15 and are allowable for the same reasons given above with respect to claim 15.

The Rejection of Claim 19 Under 35 U.S.C. 103(a)

Claim 19 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Moser (WO 99/39842 with U.S. 6,746,721 used as a translation) in view of Chang (U.S. 4,465,738) as applied to claim 15 above, and further in view of McLaughlin et al. (U.S. 6,638,569). The reasons for this rejection are stated at page 19 of the Office Action. Claim 19 depends from claim 15 and is allowable for the same reasons given above with respect to claim 15. Further, McLaughlin et al. is not relevant because it is not inherently concerned with the formation of a plasma polymer layer. Rather, McLaughlin is more likely to produce a hydrophobic layer.

The Rejection of Claim 17 Under 35 U.S.C. 103(a)

Claim 17 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Moser (WO 99/39842 with U.S. 6,746,721 used as a translation) in view of Chang (U.S. 4,465,738) in further view of Badyal et al. (WO 98/58117). Claim 17 depends from claim 15 and is allowable for the same reasons given above with respect to claim 15. Further, Badyal is concerned with producing a polymer layer on a plasma treated substrate. Badyal does not disclose a plasma polymer layer and therefore Badyal's operating pressures are not relevant to the invention recited in claim 17.

Newly added claims 30 and 31 recite limitations present in previously presented claims.

In sum, for the foregoing reasons, claims 15 and 22, as amended, are believed to recite patentable subject matter, and allowance of these claims is respectfully requested. Likewise, claims 16-21 and 30 and 23-29 and 31 depend from claims 15 and 22,

respectively, and are allowable for the same reasons given above for claims 15 and 22.

Applicant has endeavored to make the foregoing response sufficiently complete to permit prompt, favorable action on the subject patent application. In the event that the Examiner believes, after consideration of this response, that the prosecution of the subject patent application would be expedited by an interview with an authorized representative of the applicant; the Examiner is invited to contact the undersigned at (845) 359-7700.

Applicant respectfully submits that by this Amendment, the application has been placed in condition for allowance and favorable action is respectfully requested.

Respectfully submitted,

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